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ANNUAL REPORT

OF THE

BOARD OF HEALTH

OF THE

City of Pittsburgh, Pa.

FOR THE YEAR ENDING JULY 1, 1853.



PITTSBURGH:

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1853.

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THE STATE OF PENNSYLVANIA

LEGISLATIVE BUREAU

REPORT



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OFFICERS ELECT FOR 1853.

PRESIDENT.

JOHN J. MYERS, M. D.

SECRETARY.

M. W. LEWIS.

PHYSICIAN.

C. F. WILLIAMS, M. D.

HEALTH OFFICER.

GEORGE FORTUNE.

BOARD.

B. C. SAWYER,

JOSEPH PENNOCK,

ALLEN CORDELL,

JOHN J. MYERS, M. D.

H. N. SPEERS,

C. F. WILLIAMS, M. D.

JAMES M'CUNE,

M. W. LEWIS,

WILLIAM MOORHEAD.

391 098
OFFICE OF THE BOARD OF HEALTH, }
Pittsburgh, Sept. 2d, 1853. }

At a regular meeting of the Board, it was, on motion,

Resolved, That the Board have heard with pleasure the Report of the President, Dr. MYERS, and that the said Report be published in pamphlet form, and presented to the Select and Common Councils of the City of Pittsburgh, as the first Annual Report of this Board.

By order.

M. W. LEWIS,
Sec'y. of the Board.

REPORT.

*To the Board of Health
of the City of Pittsburgh:*

GENTLEMEN,—In accordance with the requirements of the law regulating the Board of Health in the City of Pittsburgh, I have the honor to submit to the Board this our first Annual Report for the fiscal year ending July 1st, 1853,—embracing a tabular statement of the deaths and interments, together with such general subjects of sanitary police as are usually assigned to the Board of Health.

Under the supplement of the Act dated 8th April, 1852, enlarging the powers of this Board, as a separate and independent corporation, they organized and entered upon the duties of their office in July, 1852. The attention of the Board was early directed, as a measure of first importance, to the City bills of mortality; and in order that they might be made reliable, the most positive instructions were given to the Health Officer to see that the intentions of the law, in this particular, were fully carried out, and that the weekly reports from superintendents and sextons of our cemeteries and grave yards, be punctually published, once a week, in our City papers.

It gives us pleasure to testify to the general accuracy of these returns. With but few exceptions, the wishes of the Board have been responded to,—and we believe that our next Annual Report will be perfect in all its details. There is no subject of more interest to a community than a truthful report of its mortality. Vital statistics, accompanied with the several causes of disease,

are valuable only according to their accuracy. The whole medical profession, and, indeed, the community at large, are interested in correct and reliable returns of deaths and interments. It is from the character of these statistics that the capitalist is induced to make investments, and the manufacturer, mechanic and merchant to select his permanent home.

The Physician of your Board regrets that his tabular report is not as perfect as desired. This is mainly attributable to a want of attention on the part of some members of the profession. Although liberally supplied by the Board with printed blanks for the purpose, it is not unusual to receive from practitioners, equally ignorant of orthography as they are of diagnosis, certificates written upon loose slips of paper, in which neither the disease, age or sex of the deceased is stated, or if stated, in terms unknown to any modern Nosologist, or so vague and indefinite as to defy classification. It is lamentable, that the standard of medical education is rated so low in this country.

I respectfully refer to the subjoined report of Dr. WILLIAMS, Physician of the Board:—

List of Deaths and Interments in the City of Pittsburgh,

FROM JULY 1, 1852, TO JULY 1, 1853.

DISEASES.	July, 1852.	August.	September.	October.	November.	December.	Jan. 1853.	February.	March.	April.	May.	June.	Total.
Consumption.....	9	8	9	6	9	7	9	10	9	10	11	7	104
Congestion of Lungs...	...	...	1	2	1	1	2	4	...	...	1	...	12
Pneumonia.....	...	1	...	2	3	7	10	4	4	2	2	1	36
Hemorrhage of Lungs..	...	...	...	...	1	1	...	1	...	1	...	...	4
Gangrene of Lungs.....	...	...	...	...	...	1	...	...	1	...	...	...	2
Bronchitis, acute & chro.	...	1	1	...	2	2	1	2	1	1	...	...	11
Hydrothorax.....	...	...	3	...	...	...	...	1	2	...	...	...	6
Croup.....	...	...	1	1	1	1	...	1	1	2	1	...	9
Whooping Cough.....	2	1	...	...	2	2	4	6	3	1	...	1	22
Spasm of Glottis.....	...	...	...	...	...	...	...	1	...	...	...	...	1
Asthma.....	...	...	...	...	2	...	4	...	...	...	...	...	6
Pleurisy.....	...	...	1	1	...	...	1	1	1	1	...	1	7
Apoplexy.....	1	1	...	...	1	1	2	...	1	...	1	...	8
Inflammation of Brain..	...	...	3	...	...	1	1	...	1	1	1	1	9
Congestion of Brain....	4	...	...	...	...	...	...	2	2	1	2	1	12
Concussion of Brain....	...	...	...	...	1	...	1	1	1	1	...	...	5
Disease of Brain.....	...	2	2	2	...	1	2	1	...	...	1	1	12
Arachnitis.....	...	...	...	...	...	...	...	2	...	...	...	1	3
Meningitis Tubercular..	...	...	...	...	...	...	1	...	1	1	...	...	3
Convulsions.....	4	2	4	2	2	2	1	2	3	5	2	4	33
	20	16	25	16	25	27	39	39	31	27	22	18	305

DISEASES.	July, 1852.	August.	September.	October.	November.	December.	Jan. 1853.	February.	March.	April.	May.	June.	Total.
Sun Stroke.....	1	1	...	...	...	...	...	...	...	...	...	2	4
Softening of Brain.....	...	...	...	...	1	...	1	...	...	...	...	...	2
Hydrocephalus.....	2	1	2	...	1	2	1	4	2	2	2	3	22
Disease of Heart.....	1	2	1	...	1	1	...	...	3	...	...	3	12
Disease of Liver.....	...	1	4	2	1	4	1	...	...	2	4	...	19
Abscess of Liver.....	...	...	...	2	...	...	...	1	...	1	...	...	4
Dropsy.....	1	...	1	2	2	2	2	2	2	1	1	2	18
Bright's Disease.....	...	...	...	...	...	...	...	...	1	1	...	...	2
Cholera Asiatica.....	2	...	...	1	...	...	...	...	...	...	...	...	3
Cholera Morbus.....	1	4	1	1	1	...	1	...	1	1	1	1	13
Cholera Infantum.....	12	6	5	6	1	1	4	...	...	1	2	3	41
Diarrhoea, acute & chron.	7	13	6	1	...	...	...	...	4	3	3	1	38
Dysentery, " "	9	8	8	3	...	...	2	...	1	2	1	...	34
Enteritis, " "	3	1	1	1	3	1	4	...	...	...	1	1	16
Gastritis, " "	...	2	2	...	...	1	...	...	...	1	...	...	6
Peritonitis.....	...	1	1	...	...	...	...	...	...	...	...	...	2
Ulceration of Bowels...	1	2	...	...	1	...	...	...	...	...	...	...	4
Intussception.....	1	1	...	...	...	...	...	...	...	...	...	...	2
Abdominal Tumor.....	...	...	...	...	...	...	...	...	1	...	...	...	1
Wound in Abdomen.....	...	...	...	...	2	...	...	...	...	...	...	...	2
Marasmus.....	...	8	1	2	...	...	2	1	...	2	...	1	17
Tuberculosis.....	...	...	...	...	...	...	...	1	1	1	...	...	3
Putrid Sore Throat.....	...	...	...	...	...	...	...	2	...	...	...	...	2
Dentition.....	9	3	4	1	1	1	...	...	...	...	4	7	30
Scrofula.....	...	1	...	...	...	...	2	3	2	1	1	...	10
Accidental.....	4	2	...	...	2	1	3	4	1	1	4	4	26
Mania-a-Potu.....	1	1	...	1	...	1	...	1	1	1	2	1	10
Scarlet Fever.....	1	4	2	4	4	9	3	5	7	9	14	9	71
Measles.....	...	...	...	...	...	...	...	7	4	4	2	1	18
Small Pox.....	...	...	...	...	...	...	...	...	...	1	2	3	6
Erysipelas.....	1	...	...	...	...	3	2	1	1	1	2	3	14
Typhoid Fever.....	2	...	...	...	...	1	1	3	4	3	2	3	19
Typhus Fever.....	3	2	...	1	...	1	...	...	1	1	1	1	11
Puerperal Fever..	...	...	...	...	...	...	...	2	4	2	4	2	14
Anemia.....	...	...	...	...	...	1	1	1	1	2	2	1	9
Old Age.....	1	...	3	2	1	1	1	2	1	2	1	2	17
Still-born.....	4	2	3	4	4	11	6	9	7	5	5	7	67
Uterine Hemorrhage...	...	...	...	1	...	...	...	1	1	1	...	1	5
Unknown.....	...	...	...	...	...	...	...	...	...	...	...	...	82
	67	66	45	35	26	42	37	50	51	52	61	62	676
	20	16	25	16	25	27	39	39	31	27	22	18	305
	87	82	70	51	51	69	76	89	82	81	83	80	981

An examination of the above statement, presents us with a subject of congratulation. We are satisfied that it will favorably compare with any mortuary report in our country. The result is most extraordinary, and worthy the consideration of our citizens. True, the last year has been one of unprecedented health, with an almost entire exemption from fatal epidemics—while those diseases that have prevailed, have been mild in type, and easily managed under proper treatment.

It will be seen that Consumption here, as elsewhere, has been the great "outlet for human life," but to an extent greatly disproportioned to our population, when compared with other cities of the Union. It is to this disease that I especially call the attention of the Board of Health, as I am satisfied, from a careful investigation of the subject, that our location, climate, and many *local causes*, conduce to make Pittsburgh one of the healthiest cities in the known world, and *particularly favorable as a residence to those predisposed to pulmonary disease*. This, I know, is not the Professional opinion; but I think I can show that Pittsburgh is not the "grave yard" for the consumptive, and that those afflicted with weak lungs have as great immunity from that disease here as in any city in the universe. The opinion on this subject is all wrong; and the current impression abroad, that consumptives cannot live among us, has greatly retarded the growth and prosperity of the city.

The following summary shows the mortality in several cities for the last year, and the proportion of deaths by consumption:—

Cities.	Deaths.	Population.	Ratio of Deaths.	Deaths by Consumption.	Ratio.
New-York,	21.601	515.000	1 to 23	3.487	1 to 207
Philadelphia, ..	10.258	409.000	1 to 39	1.204	1 to 339
Boston,	4.087	143.000	1 to 35	707	1 to 203
Baltimore,	5.313	169.000	1 to 31	728	1 to 232
Washington, . . .	1.087	40.000	1 to 36	133	1 to 300
Norfolk,	390	15.000	1 to 38	30	1 to 500
Memphis,	705	13.000	1 to 19	57	1 to 225
Vicksburg,	162	4.500	1 to 27	18	1 to 260
Cincinnati,	3.473	123.000	1 to 36	420	1 to 293
Pittsburgh,	981	55.000	1 to 56	104	1 to 528

From the above summary, which is taken from official reports, it appears that the average number of deaths in other cities, from all diseases, according to the ratio of population, is 1 to 30 pr annum.

In Pittsburgh, the number is - - - 1 to 56 “

Average No. by consumption in above cities, 1 to 247 “

Do. do. in Pittsburgh, 1 to 528 “

In making up our Annual Report, a most liberal allowance has been made for interments in private burial grounds, and for any irregularities in the return of certificates.

In order to *test* the accuracy of this general summary, by recent reports, we give the comparative mortality of various cities, for the

weeks ending August 1st and 15th, 1853, in which will be seen the same result, showing a very large per centage in favor of our city, not only in the aggregate amount, but in the mortality of individual cases of disease.

Comparative Mortality of Pittsburgh with other cities, according to their respective populations, for one week ending August 1st, 1853.

Cities.	Deaths.	Population.	Ratio of Deaths.
Pittsburgh,.....	22	55.000	1 to 2.500
Philadelphia,.....	247	409.000	1 to 1.168
New-York,.....	571	515.000	1 to 902
Baltimore,.....	123	169.000	1 to 1.374
Boston,.....	111	139.000	1 to 1.252
Brooklyn,.....	99	97.000	1 to 980
New-Orleans,.....	884	120.000	1 to 135
Charleston,.....	20	43.060	1 to 2.150
Savannah,.....	6	16.000	1 to 2.666
Mobile,.....	19	20.500	1 to 1.079
Cincinnati,.....	80	123.000	1 to 1.537

For one week ending August 15th, 1853.

Cities.	Deaths.	Population.	Ratio of Deaths.
Pittsburgh,.....	15	55.000	1 to 3.666
Philadelphia,.....	259	409.000	1 to 1.557
New-York,.....	585	515.000	1 to 876
Baltimore,.....	157	169.000	1 to 1.078
Boston,.....	136	139.000	1 to 1.022
New-Orleans,.....	1518	120.000	1 to 65
Brooklyn,.....	100	97.000	1 to 970
St. Louis,.....	84	80.000	1 to 952
Charleston,.....	15	43.000	1 to 2.876
Mobile,.....	20	20.500	1 to 1.055
Savannah,.....	8	16.000	1 to 2.000
Cincinnati,.....	81	123.000	1 to 1.413

The location of Pittsburgh is naturally salubrious. Elevated above the Atlantic Ocean and great Northern Lakes from 150 to 200 feet, it is above the malarious influences that constantly prevail in the extreme South. There is no immediate cause, either in or near our city, to generate miasma. The effluvia arising from the decomposition of local deposits incidental to a crowded city, is either innoxious, or entirely carried off by the strong winds of the north and northwest, which, passing up the Ohio, sweep through the river hills surrounding our city, and free it from all such impurities. Indeed, it is a question if we have malaria, or if it does

exist, whether it is not so modified, by atmospheric causes that we will presently notice, as to fail to occasion disease. Epidemics, produced from this cause, scarcely ever visit us; and individual cases of intermittent and remittent, with the whole family of bilious fevers, are becoming every year more sparse. In comparison with other cities, we have much less pulmonary consumption, and fewer cases of scrofula and diseases of the skin,—leaving us, as a class, with but few diseases, except those dependent upon some specific contagion.

Whether this extraordinary health is attributable to the absence of malaria, or the introduction of new elements, is a question of much interest. It is estimated that there is within our city limits an annual combustion of 12,000,000 bushels of bituminous coal. The atmosphere is filled with carburetted hydrogen and sulphurous gases, which, in combination with the “impalpable dust of charcoal,” is being inhaled at every inspiration. From a careful analysis of this coal dust, I find it to be pure carbon, the result of this immense combustion of coal. All-pervading and impalpable, we breathe it constantly—and in the form of the *blackest smoke*, it “covers the city like a mantle.”

From repeated post mortem examinations, made both in my public and private practice, I have found in every instance where the patient lived and died in this atmosphere, that the tissues of the lungs were coated with this coal dust; not the throat and bronchial passages only, but the body and air cells of the lungs—this dust having been inhaled and deposited upon their membranes. Of this there is no doubt; its presence is seen without the microscope, and often in quantities sufficiently great to be collected without maceration.

I have a gentleman under my charge at this time, predisposed to pulmonary disease, who visited the North last summer for his health, who assures me that in Montreal, six weeks after he left the city, he expectorated the coal dust of Pittsburgh; and one of our most respectable clergymen informs me, that after an absence of nearly two months in the South, he was daily in the habit of spitting this black coal dust secretion. I mention these cases to show that this deposit is not merely bronchial, but deep-seated and permanent. I could adduce hundreds of cases to establish this fact. Every Pittsburgher has expectorated this black secretion; it is of constant occurrence, and so common as not to be noticed.

With the stranger, however, it excites great interest and alarm, and has often been mistaken for a degeneration of the body of the lung itself.

Charcoal, or carbon, has long been known as an active therapeutic agent, principally for its disinfectant and antiseptic qualities. No application is more common to diseased tissues, even where the parts are gangrenous and their vitality destroyed. Tainted meats are restored by its action, and the most foul and fetid ulcers recovered by its antiseptic powers. The colliers employed about the pits of our charcoal furnaces, although exposed to great hardships and vicissitudes of weather, are, as a class, exempt from pulmonary disease; and I have statistics to show that our puddlers, rollers and other operatives engaged in our large iron manufactories, do not die of consumption. Now, if the action of charcoal upon diseased tissues is *curative*, and its inhalation by those constantly exposed to its smoke and dust *protective*, may we not reasonably suppose that the exemption of our city from pulmonary disease is in part owing to this cause?

The atmosphere of our city, loaded with smoke and the impalpable dust of charcoal, is breathed at every inspiration. The air, passing through the innumerable cells of the lungs, deposits on their tissues a portion of this carbon, which, acting as an antiseptic, prevents the incipient nucleus of tuberculous disease; or if tubercular deposits have been formed, relieves the lesion, and restores the lung to its healthy condition.

This is not idle speculation. In my investigation of this subject I have met with many cases of well marked tuberculosis, which had kindly given way, as the patient supposed, to the climate; and these individuals are now in the enjoyment of good health. Strangers, with weak and irritable lungs, are greatly annoyed by the smoke and dust, and at first seem to suffer an aggravation of the disease; this, however, is nothing but local irritation of the membranes, produced by the introduction of foreign matter, and which gives those acclimated little or no inconvenience.

Bronchial disease, both acute and chronic, is of much milder type here than elsewhere. Our reports show but eleven deaths of this form of disease within the last year. The smallness of the number is almost incredible, when compared with other cities. Indeed, we have no acute bronchitis such as prevails in the East, along the Atlantic shores;—I mean those frequent cases of exten-

sive ulceration, and a softening and entire breaking up of the membranes of the throat. There it is consumption, and people die of it; with us it is a modified disease, characterized by mucous irritation.

The intelligent physician has long since abandoned the "heroic" mode of treating pulmonary disease, and those constitutional remedies once so much in practice are now almost entirely laid aside. The great desideratum now is to find a local remedy that will restore and maintain the integrity of the lungs, without exhausting the little strength that usually attends the disease. In my own judgment, the *application* of that remedy, whatever it may be, will be found most efficacious in the form of inhalation. A further investigation of this subject would not be pertinent to this Report. From the facts and statistics now in my possession, I could elaborate this argument to a considerable extent; enough has been said, however, to show that our city is happily exempt from pulmonary diseases, and that the coal dust, although a source of great domestic discomfiture, is not necessarily injurious to health.

We have had but three fatal cases of Asiatic Cholera reported within the last year. The disease still lingers in our country, and occasionally shows itself with great malignancy, particularly in the small towns east of and bordering on the Allegheny. It is hoped that we may escape from this dreadful scourge. The laws which govern epidemics are all arbitrary, and particularly so with regard to this disease. So erratic is its course, that no calculation can be made of its approach. Like the wind, it "bloweth where it listeth, but canst not tell whence it cometh or whither it goeth." In the town of Cumberland, Maryland, near the borders of our State, it now rages without any diminution of its former fatality, as rapacious and malignant as in 1832. With a population now of not over 5,000, twelve deaths have occurred within one day. A similar ratio of mortality in Pittsburgh, with its 55,000 inhabitants, would make the appalling record of 132 deaths per day! We make this comparison, not for the purpose of creating alarm, but to impress our citizens and authorities generally with the importance of a strict attention to our sanitary regulations.

The ravages of the present epidemic in New Orleans, awful and unprecedented, has occasioned some alarm. The return of 315 deaths for one day, in a population *now* less than our own, cannot be realized—and the misery and suffering of the victims can

scarcely be imagined. Its pathology does not seem to be understood, and many of its characteristics would induce us to believe that it is a *more fatal* disease than Yellow Fever. That it is contagious, and communicable by the ordinary means of commerce and travel, we cannot doubt. Many of our South-western towns are now suffering from its visitation, and the Board of Health of Philadelphia report this week four cases of unmistakeable yellow fever. Let nothing, therefore, be undone to clean and purify our streets and thoroughfares, and, if possible, preserve the health of our highly favored city. The attention of the Health Officer has been especially directed to this subject, and a careful examination is made of all Southern boats previously to their landing. There has not been a single case of this fatal fever; and should it be found necessary, our quarantine laws will be most rigidly enforced.

The Small Pox has prevailed to some extent in the Fifth and Ninth Wards. These cases have been almost entirely confined to foreigners, who reside in our crowded streets and alleys. But few cases have occurred in the heart of the city. Every precaution has been taken by this Board to arrest its progress, and protect our citizens from this most loathsome disease. Upon its first appearance, a temporary Hospital was established without the city limits for small pox patients, and every arrangement made for their reception should the disease prevail as an epidemic. By a resolution of your Board, physicians were appointed to canvass the city, especially the infected districts, and vaccinate all those who were unprotected. They are now engaged in this duty, and report the vaccination of several hundred cases, with a gradual abatement of the disease.

It is hoped that the Board of Health will call the attention of the Councils for an annual appropriation, to enable them to establish a permanent Vaccine Institute. As a measure of economy, this would be advisable—and a small annual appropriation for vaccine purposes would greatly tend to prevent the introduction of disease, and save the expenditure of hundreds of dollars in maintaining a Small Pox Hospital. We ask from the Councils a favorable consideration of this subject. The city has no immunity from this disease; it may break out without a moment's warning, and will find abundance of material among our foreign population. Vaccinations in the "old country," from the evidence before us, must certainly be done in a very loose and uncertain manner.

The majority of foreigners are entirely unprotected, or bear upon their arms a spurious cicatrix, wanting all the *unmistakeable* marks of a genuine vaccination.

The question is frequently asked, if the prophylactic effects of vaccination wear out of the system, and whether re-vaccination is necessary. It is an acknowledged fact, that all organized bodies are subject to waste and decay. Some even suppose that there is a complete destruction of the whole animal machine every seven years, and that all constitutional impressions pass out of the system in the general wear and tear that is constantly taking place. Whether this maintains with *vaccine virus*, I am not prepared to say. The opinion of medical writers on this subject is not settled, —but as a measure of safety, I would advise all persons, whenever an opportunity is afforded, to be re-vaccinated, if for no other purpose than to *test* the genuineness of the protection.

The Health Officer reports that he has caused to be abated within the last year over 250 nuisances, of almost every form and description, and spread over the different wards of the city. This is a large number, and required much laborious duty, which has been performed to the entire satisfaction of the Board.

It is alleged that the Board of Health travels out of its legitimate duty when it notices subjects of a public nature, which come more particularly under our City Ordinances. The Board has assumed to accomplish the full intentions of the law, and feels that upon them devolves the highest and most important duties. To prevent disease, remove its sources, and shield our City from contagion, is our province. To these high objects all municipal laws should conform, the health and happiness of our citizens being the paramount objects of all legislation.

Upon all occasions, when required, we have had the coöperation of the City authorities, and a cordial response to the suggestions of this Board. Our streets, alleys and gutters are as clean as those of other cities which have not the dirt and offal incidental to a large manufacturing city. In our new Wards there will be constant subject of complaint. The grading and paving of these new districts necessarily produce inequalities, in which the surrounding water and filth will accumulate. These ponds have, in every instance, either been drained or filled up,—and as buildings and improvements progress, this difficulty will be obviated.

A defect exists in the construction of sewers, which we think

deserves your special notice. According to the present plan, the mouth of the sewer is left open, often in the most public thoroughfares, with no arrangement to prevent them from eliminating and disgorging upon the neighborhood the most offensive and deleterious effluvia. This is particularly the case with the sewer at the corner of St. Clair and Penn streets, which could be remedied by a balance valve at its mouth.

The law regulating the cleansing of cess-pools and the licensing of "night soilers," has been found fully adequate for the purpose contemplated, and although only a few months in operation, has already become a source of revenue. This, with the annual appropriation, we hope, will be sufficient for the current expenses of the year. It has been the object of this Board to perform the greatest amount of good from the smallest amount of means—and on looking over the operations of the last year, we are satisfied that it has been accomplished.

In concluding this Report, we take pleasure in announcing that the general objects of this Board have been realized. The last year has been one of health and prosperity. For these blessings our acknowledgments are due the Great Author of all Good, in "whose hands are the issues of life and death."

I have the honor to be,

Respectfully,

JOHN J. MYERS, M. D.

Pres't. Board of Health.

PITTSBURGH, August, 1853.

I have been favored by Mr. W. W. WILSON, a most accurate and scientific "observer," with the following extract from his Meteorological Record, reported monthly for the Smithsonian Institute. It will be found interesting to those engaged in meteorological investigations:—

Extract from W. W. Wilson's Meteorological Record,

Reported monthly for the Smithsonian Institute.

1853.	BAROMETER. Monthly Mean.	THERMOMETER. Monthly Mean.				RAIN.
		Morning.	Noon.	Night.	Average.	
April,...	28.89	44°	54°	47°	48°	3.640
May,....	29.02	57°	67°	58°	61°	4.297
June,....	29.22	70°	82°	70°	74°	1.853
July,....	29.08	67°	80°	70°	72°	3.428
August,.	29.10	66°	79°	68°	71°	7.747